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GONE with the FLOOD

These interesting letters from Louisville and Memphis tell how dentists aided in flood relief; what they found when they returned to their offices.

THE EFFECT of the flood on Louisville will be easier to understand if you recall that more than two-thirds of Louisville is virtually flat. This includes all of the business section and the western side of Louisville along Shawnee Park which is an attractive residential section. This area of Louisville was all under water.

The Brown Hotel, for instance, and the large Heyburn Building, both at Fourth and Broadway, had four feet of water in them. In the western part of the city, it was as high as ten and twelve feet in the homes and business houses, and the water came right up to the foothills of the Highlands, which is up in the dry area.

All of the people living in the central, southern, and western parts of Louisville had to be moved. About 200,000 out of the 350,000 were moved up in the Highlands and elsewhere in the county, state, and adjoining states.

Our own place of business, here in the center of Louisville, happened to be on one of the several high spots. Although the water came up seven inches above the bottom of our front doors, we sealed the doors with roofing cement, both inside and out, and were able to keep our floors dry. No water came in and we had no water damage.

At the crest of the flood, the Louisville Gas and Electric Company was put out of commission. The walls of the building were crushed in and everything was flooded. That left us without electricity. Then, the pumping station at the water plant was covered and our water supply was cut off, except for one hour a day. Naturally, with all of the basements flooded, there was little heat available anywhere, so you see, without power, heat, light, or water, we were in a bad position.

There have been tremendous cave-ins all over the city; large buildings have sunk one way or the other and it will take many months to repair them.

As for the dentists, never before have the dentists played such an important part. They deserve all the credit in the world. While working throughout the Highlands day and night, we saw these dentists on duty. All schools, churches, and municipal buildings in the Highlands were

This graphic picture (top) taken near Cincinnati, shows what Doctor C. R. McWethy of Lawrenceburg, Indiana, found when he opened his reception room after the flood.

Reclamation had already begun when this picture was taken of Doctor McWethy's operating room. Note the high-water mark on the walls of these rooms.

housing anywhere from 1,000 to 2,500 refugees each. The first procedure in the handling of all refugees and everybody else was to give typhoid shots and, in virtually every institution, the dentists were giving these typhoid shots. They were on the job everywhere; in fact, we saw more dentists than we did physicians, a great many more, and they were certainly active. The dental profession set up twenty-three dental relief stations immediately, establishing them in different dental offices throughout the Highlands and they had one established in a downtown district that was partly dry. They were giving relief in any capacity that was possible.

We furnished each of these stations with the necessary sterilizing agents, anesthetics, forceps, cotton goods, medicaments, and other necessities, so that all emergencies could be handled and they were. You would be surprised to see how these dental relief stations were crowded day and night. There were always plenty of dentists on hand, even in addition to those who were stationed throughout the public institutions, giving the typhoid shots. In our opinion they certainly played a most important part, and we do hope that they will get their just credit in this city.

As to cooperation with the Red Cross, we do not know that there was any direct cooperation with the dental profession. But we do know that none of the citizens of Louisville will ever forget the splendid service given by that wonderful organization, the Red Cross. The workers did not ask any questions, but got busy immediately. They saw that food, clothing, blankets, and other supplies were coming in by truck and airplane. And the Red Cross also utilized the one railroad that was left open, the Southern, which could only come in as far as Buechel, Kentucky, a suburban station eight miles from the center of the city.

As for the effect on the dental offices, the flood has been disastrous. So far, we have brought in twenty-two dental offices from the west end. Today we are starting over in Jeffersonville, Indiana. There are eight dentists in Jeffersonville, across the river, and all of them are on the main street and, incidentally, in second floor offices. They had twenty-three feet of water on this main street, so naturally it covered the two-story buildings which are there.

It is a job to open up one of these offices, because you have to break the door down to get in, as every door has been swollen badly. Then, the sight that greets you—first of all, about six inches of mud and silt is over everything. In the reception room, you will find that the chairs (those that have not fallen to pieces) have floated one way or the other. The dentist's desk is usually tipped over or upside down, all the papers out of the desk, and the desk is virtually falling to pieces.

In the operating room, the dental cabinet naturally shows most damage, it being constructed of wood. It is warped, pulled to pieces, the drawers are out, and you will find the contents in almost any room of the dental suite. Likewise, with the laboratories—everything has been swept off the benches and, in most cases, the benches have fallen apart and turned over. Everything the dentist owns is down on the floor in the mud.

Fortunately, however, we are well equipped to take care of these dentists. We have large gas drying ovens for baking enamel. We are bringing in all of this dental equipment and, of course, we are washing all the electrical equipment in gasoline and then baking it in our large ovens. We are tearing the equipment apart, completely washing it in large warm water vats, then rubbing it down with stone and oil. With the exception of the cabinets, we have been able to salvage every piece of dental equipment handled so far.

There will be much additional work in our large office buildings where the water only came in the first floor, as we find that, with the heat and lights cut off, these buildings became extremely cold inside. Now that it has warmed up the condensation is terrific. There is so much moisture in these buildings that the water is actually running down the stair steps and dripping all over the dental equipment and all other forms of equipment. On account of this heavy amount of moisture, there will be a great deal of damage. We will have a tremendous amount of work when these large office buildings open up again.

We have been able to get a few pictures and will send them to you in just a few days. Even the photographers are handicapped for developing, inasmuch as they have no way to control the temperature of their solution nor light to work by, but this particular one who does our work has promised to let us have these pictures without fail.

We might say that our laboratory has been able to function for about a week, although all of the other laboratories in town are entirely out of commission. The reason is that the only part of the residential section in the city that has lights and heat happens to be in the section in which Doctor Crutcher lives, so he has moved the greatest part of his laboratory out into the basement and has his whole force working there. In this way, we have been able to keep up with our laboratory work.—E. B. Hoke, *Vice-President, T. M. Crutcher Dental Depot, Inc., Louisville, Kentucky.*

Memphis Letter

Memphis has always been a haven for the surrounding territory in flood times. Of course this is the worst ever and we almost had more than we could take care of. It is estimated that Memphis will care for approximately 100,000 refugees—either through the Red Cross or private

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After the flood, a Louisville photographer found these vivid scenes of destruction in dental offices.

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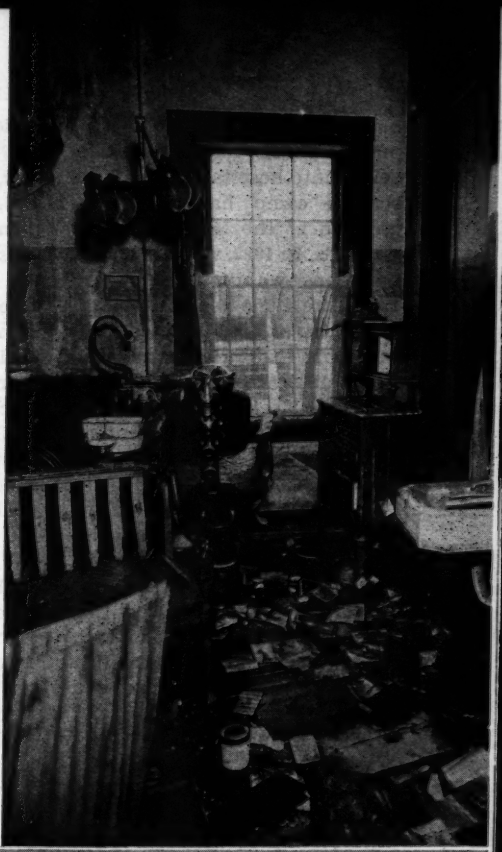
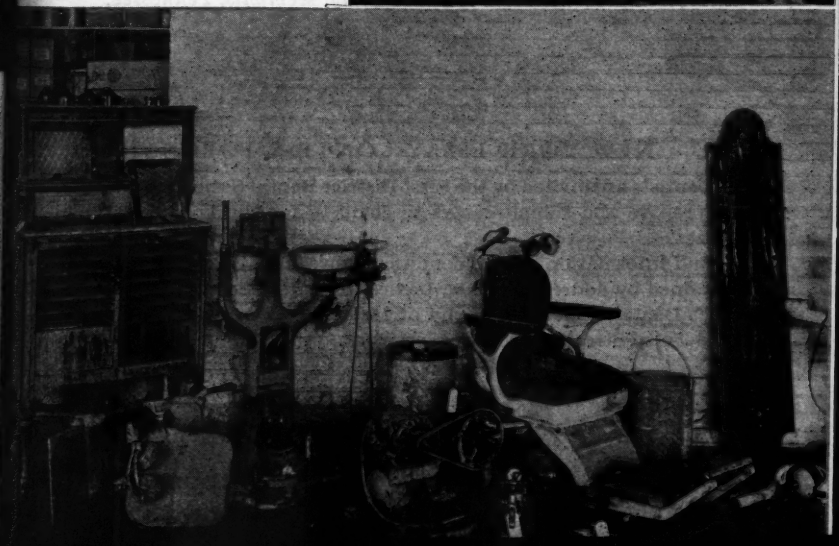
Dental equipment that had been subject to the destructive effects of the flood is shown below.





individuals. Sixteen of the local public schools have been converted into hospitals and a large refugee camp has been constructed at the Mid-South Fair Grounds. In 1927, we were able to get along with tents. However, this time huge temporary barracks have been erected. The Memphis Auditorium, the scene of the 1932 American Dental Association Meeting, has been converted into a refugee center—along with a number of other buildings.

We, in this particular vicinity, were well prepared with advance notices of the flood crest and, consequently, the loss was limited largely to property rather than human lives. All doubtful areas were evacuated prior to the flood crest or could be evacuated at short notice.

The Memphis Dental Society was, of course, prompt in offering its services to the Red Cross, and for the first several days the membership of the local Dental Society devoted its entire time to the refugees. I understand that now, with things better organized, the members have placed themselves on call with the Red Cross, and the work of caring for the dental relief is being taken care of without charge by the men comprising the local Dental Society. On account of the large number being cared for, the work of course is virtually and necessarily limited to relief of pain.

In closing, let me say that the American Red Cross, through the generosity of the American people, has certainly done a wonderful job in this section. A disaster such as this flood is pretty hard to comprehend until it happens right in your own backyard, and I don't think that the people in the Mississippi and Ohio Valleys would ever get over a disaster such as this if it were not for some agency such as the Red Cross.—H. B. COLLINS, *Vice-President, The Gwinner-Mercere Company, Memphis, Tennessee.*

NEW YORK ESSAY CONTEST FOR 1937

Dentists are invited by the First District Dental Society of New York to prepare and submit essays to compete for the Lord and Chaim Prizes.

Full information on the conditions governing competitors may be obtained by addressing E. M. Davies, Executive Secretary, First District Dental Society, Academy of Medicine, Two East One Hundred and Third Street, New York, New York.

Building DENTALLY CONSCIOUS *Audiences*

by GEORGE WOOD CLAPP, D.D.S.

DENTISTRY NEED no longer be the tail of a radio broadcast carried along by the strength of the listener's interest in something else. A way has been found to make it the main theme and to hold the interest of a large and growing audience from week to week. We can have as large and as attentive an audience as we are willing to earn.

Let us prove these statements by a visit to a group of the frankest and most critical of all people, boys and girls from 13 to 15. If we can interest and hold them, we may have hopes of any audience.

Our story opens in an eighth-grade room in Glen Oak School, Peoria, Illinois, where a story from "The Dentist Says" is about to be broadcast by the class to the class. There are forty-eight pupils in the room, and they are, for the time being, in complete charge of what is being done. Let us take seats at the back of the room and watch.

At the front of the room and to our right we see the piano and pianist, a microphone with a boy and two girls about it, and a table with seven pupils seated around it. Between us and the table are thirty-seven pupils leaning forward with interest.

The pianist plays the theme song, "Amaryllis." The announcer, one of the three at the microphone, says: "This is Station GOWF (Glen Oak World-Wide Friendship Station) broadcasting 'The Dentist Says.' This is our first season with this program, and we want to make it so plain that everyone can understand it, so let us give you an idea of our plan.

"Because three out of every four pupils in the grades have ill health, they do not receive the full benefit of the education their parents are trying to give them. No child with extensive decay of the teeth is physically fit, no matter how well he may appear otherwise. In most cases the condition can be remedied without serious trouble or expense, if intelligent action is begun promptly and continued. Three things must be done to assure health:

1. "The mouth must be made free from decay.

2. "The intestinal tract must be kept clean.

3. "The child must be wisely fed.

"We hope you will enjoy this program and will put into daily practice the ideas it brings you."

The other two standing at the microphone then broadcast the dental travelogue for the day, which is in dialogue form. At the close the chairman, who, with six assistants, is seated at the table, opens the subject for discussion. Usually the members of the class remain in their seats for this discussion, but every third week the arrangement is as we see it. The assistant chairmen bring out vital issues to be settled, some new ideas to be enjoyed, or material with an authoritative background relating to some subject that has been discussed in former lessons but has not been settled. The pupils in their seats take an active part. Dental facts, figures, and problems occupy an important place in the discussions. After the discussion the announcer signs off, to the accompaniment of the theme song, by saying: "This is Station GOWF signing off. We've had a jolly good time, Nanette, reading your Christmas letter (or whatever the title of the broadcast may have been.) Goodbye until next week."

What has Happened?

More than meets the eye, and it affects three groups of people. Let us take one group at a time.

Forty-eight pupils have been busy for half an hour, studying dentistry first and, through dentistry, geography, history, travel, transportation, food supplies, and written and spoken English.

Because of their interest in the dental story, they have absorbed knowledge without effort. Think that over and see if it isn't a complete reversal of form—dentistry being taught to pupils by pupils and carrying other subjects with it.

A second effect on the pupils, reported both by Miss Miller, teacher of this class, and by Mr. Placher, Principal of White School, Peoria, which is using "The Dentist Says" in a different way, is the spontaneous development of plans of physical self-correction in which the mouth receives dominant attention. Children are going voluntarily to dentists for service and giving their mouths good care at home. In one class in another city where "The Dentist Says" is regularly followed, six boys played "hooky" to go to dentists and proved by their mouths that they had told the truth. Isn't that something new?

A third effect—and, from our point of view, one of the most important—is that the more attentive of the pupils become missionaries of dental health in their homes. Do you think there is a home represented in that class that does not know about Station GOWF, about who announced and who broadcast that day and the theme of the story? If a boy or girl managed to score a "beat" in the discussion, don't you think it was talked over at home? How could the knowledge of a program of such interest to pupils be con-

fined to the parents of that one class?

The more progressive of the pupils are effective missionaries of dental health also to classmates who postpone the necessary visit to the dentist or omit daily home care of the teeth. One pupil can "razz" another as no parent can, and can achieve results no parent can approach.

The Second Group

The second group of persons, here represented by Miss Miller, consists of the teachers who must teach health subjects. Some of them are required to assemble their own material, which is a difficult thing to do, and they say much of it lacks teachability. Doctor C. Carroll Smith, famous for his work in the Peoria schools, whose preliminary work made these broadcasts possible in those schools, writes: "The enthusiasm and practical good which have been in evidence prove this to be one of the best dental-health aids in education to be tried in our Peoria schools."

"The Dentist Says" lightens the teacher's work. Take a subject which is hard to teach, such as oral English, which to us means reading aloud—it is difficult to interest pupils in it. Since it has become an honor to be allowed to broadcast or announce or be one of the chairmen, oral English, in Miss Miller's room, almost teaches itself. Emulation is leading pupils to practice reading aloud at home. Do you know of anything else that gets them to do that? Children bring to the schoolroom books and articles dealing with the location of the

Class in the Glen Oak School, Peoria, Illinois. Station GOWF calling Nanette. The chairman and six assistants are seated at the table.

story—and argue over their ideas about it.

The third group to be affected, invisible here, are the parents. A new factor has stolen into their environment—interest by the child in the health of the mouth. Mr. Placher reports that almost weekly a mother comes to thank him for what the "emphatic urge" of "The Dentist Says" is doing for her boy or girl.

These pupils are not hesitant in criticism of dental conditions in their parents of which their new knowledge makes them conscious. One class of thirty children sent thirty-one of their adults to dentists before they would let them live in peace.

Indiana Takes the Lead

Doctor Mary H. Westfall is Dental Health Educator in the Bureau of Maternal and Child Health of the Indiana State Board of Health, of which Howard B. Mettell, M.D., who understands well the importance of dental health to general health, is Chief. She has the support of a group of men of high caliber in the dental profession.

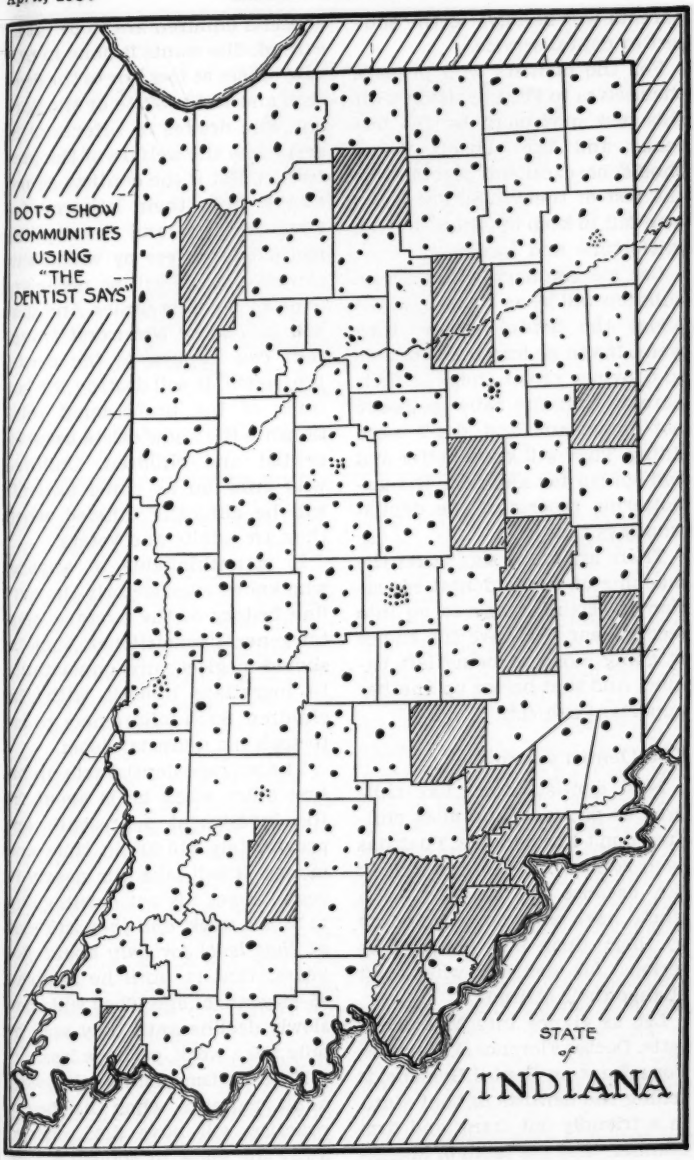
With Doctor Mettell's approval Doctor Westfall had some schools try "The Dentist Says" and found that both teachers and children liked it. Then she submitted it to Mr. Floyd I. McMurray, Superintendent of Public Instruction for Indiana, and Thurman D. Rice, M.D., Director of the Indiana Bureau of Physical and Health Education. Both of these men studied the broadcasts critically, and both approved "The Dentist Says" for the schools of Indiana.

It was then early January, and, as "The Dentist Says" closes its season in April, the time was short. Mr. McMurray and Doctor Rice jointly offered the broadcasts to about 700 schools scattered about the state in such way as to give all sections equal advantage. The broadcasts are already reaching 500 of the 700 schools and will soon be in the other 200.

What Does This Mean?

It means many things, several of which we do not all see clearly. The drive for the only kind of public education by which caries and oral uncleanliness can be brought under control is passing out of the hands of the dental profession, where it has slumbered for nearly a century with pitifully little accomplished, into the hands of the dental representatives in State Departments of Health and into the hands of the public school system. This drive may be expected to accomplish more in the next ten years than has been done in the last hundred.

In Indiana, for instance, the use of "The Dentist Says" will, during the remainder of this school year, begin to make 75,000 children more actively dentally conscious than they have ever been. If the use of the program is continued in future years and extended through the school system of the state, a vast number of school children and their


DOTS SHOW COMMUNITIES USING "THE DENTIST SAYS"
STATE of INDIANA

parents will be alive to the subject of dental service.

For the dentists who prepare themselves to keep in stride with this new movement by the bureaus and the schools, there should be excellent practice for the rest of their lives. For those who fail to keep up, there may be misfortune and sorrow.

Let me emphasize this. Those children will be as keen as hawks about the dental service they want. It will no longer be possible to convince either them or their parents that the baby teeth are not important and don't need filling. They will know better and will spread far and near the unflattering reports of the dentist who says that.

There are many signs that the machine of public dental education is getting ready to go into second gear. We have the choice of going along or being left behind. And that brings up another important subject.

The Dentist's Attitude

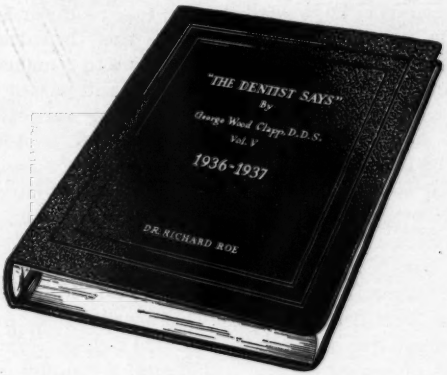
Most dentists don't like children as patients, and most children don't like dentists. That has been serious for the children so far, because the dentists, as a whole, have never done their duty by them. Soon it is going to be serious for dentists who don't change their attitude.

Let us glance into Massachusetts. Doctor Florence B. Hopkins, Consultant on Dental Hygiene, is telling the dentists of that state, in a friendly but frank and firm manner, that the teeth of Massachusetts children are to be taken care of. She wants it done in private offices at fees fair to the dentists and to the state or the parent. She desires to safeguard in every way the welfare of the profession. But if the dentists do not awake from their lethargy toward children and develop the methods and fees by which this can be done, it will be necessary to develop public clinics. And that will be *one of the worst things that can happen to the dental profession.* It will destroy the last trace of the professional relationship that now exists between dentist and children. Children who grow up as clinic patients will be clinically minded when they are adults and voters.

It is unthinkable to anyone, who knows even slightly the outline history of the average dental general practitioner, that he should neglect any opportunity to ingratiate himself with the children. Such failure may go far to spell his financial doom.

The average dentist sets up his first office when he is about 26. His investment represents approximately $10,000 in time and money. It will take him nearly 15 years to get his net earnings up to $100 a week, *and they will stay at that level for only about five years;* that is, until he is about 45-48 years of age. They will then slowly decline until they may be only $50 a week, perhaps less.

By that time many who were adult patients when he began practice will have died, moved away, or gone to someone else.



He will have lost some of his prestige—and he will face old age with a declining income.

The practices of the dentists whom the children love are insured against such decline. Untroubled by ethical scruples, children unhesitatingly proclaim the dentist they don't like as a grouch and boost the one they do like to the skies. He never neglects or misleads them, and he soon gets them where he doesn't have to hurt them. They go to him without a trace of fear and often bring the adults with them. An excellent practice is maintained as long as the dentist can serve. It must be an exceptional general practitioner who can afford to neglect the children.

So far we have glanced only at Peoria and Indiana, but that is not all the story. For instance, in Utah Doctor R. C. Dalgleish has won the approval of Mr. Skidmore, State Superintendent of Schools, and "The Dentist Says" is going into 100 schools with the probability of statewide use next year. If you were to stand by our mailing desk, you would see "The Dentist Says" going to 23 states in all, to one-room country schools in New Hampshire, Vermont, Montana, and California and to some of the large schools in the East. Just as this is being written there comes a request for broadcasts for the eighty-five county schools in Wayne County, Iowa. All told, more than 150,000 children in 5,000 schoolrooms in 700 communities in 23 states are getting weekly lessons from the printed Tuesday broadcasts of "The Dentist Says." In the radio area several thousand additional get it over the air.

The schools have obtained the

broadcasts in three different ways. Here and there dentists or dental hygienists have called them to the attention of teachers, principals, and superintendents. Frequently connections have been established with school authorities by letter from the office of "The Dentist Says." More recently and more effectively, in states where there are Dental Health Officers, the information about the broadcasts has gone from some important dental society to the Dental Health Officer and through him or her to the department of education.

Take Massachusetts as an illustration. The Massachusetts Dental Society long ago approved "The Dentist Says." Recently it carried its approval to Doctor Florence B. Hopkins, Consultant on Dental Hygiene, with the suggestion that the broadcasts might prove helpful in the dental educational work to be undertaken in the state. Under the direction of Mr. Franklin J. Gray, Director of Physical Education in the schools of Springfield, the broadcasts are being given a practical trial in a number of schools, with a view to adoption if the results are satisfactory.

When the use of the printed broadcasts began, no one could foresee this astonishing development and the serious expense involved. So the printed copies were offered, without restriction, to schools, free on request and postage paid. The requests have outrun the budget, and the following plan has been devised to permit as much service as possible with available funds: To schools having four rooms or less that would use the broadcasts (usually grades 4 to 9 inclusive) one copy is sent and passed from room to room; to schools having six rooms, two copies; to schools having nine rooms, three copies. It is too bad to have to limit service in this way, but for the present it is unavoidable.

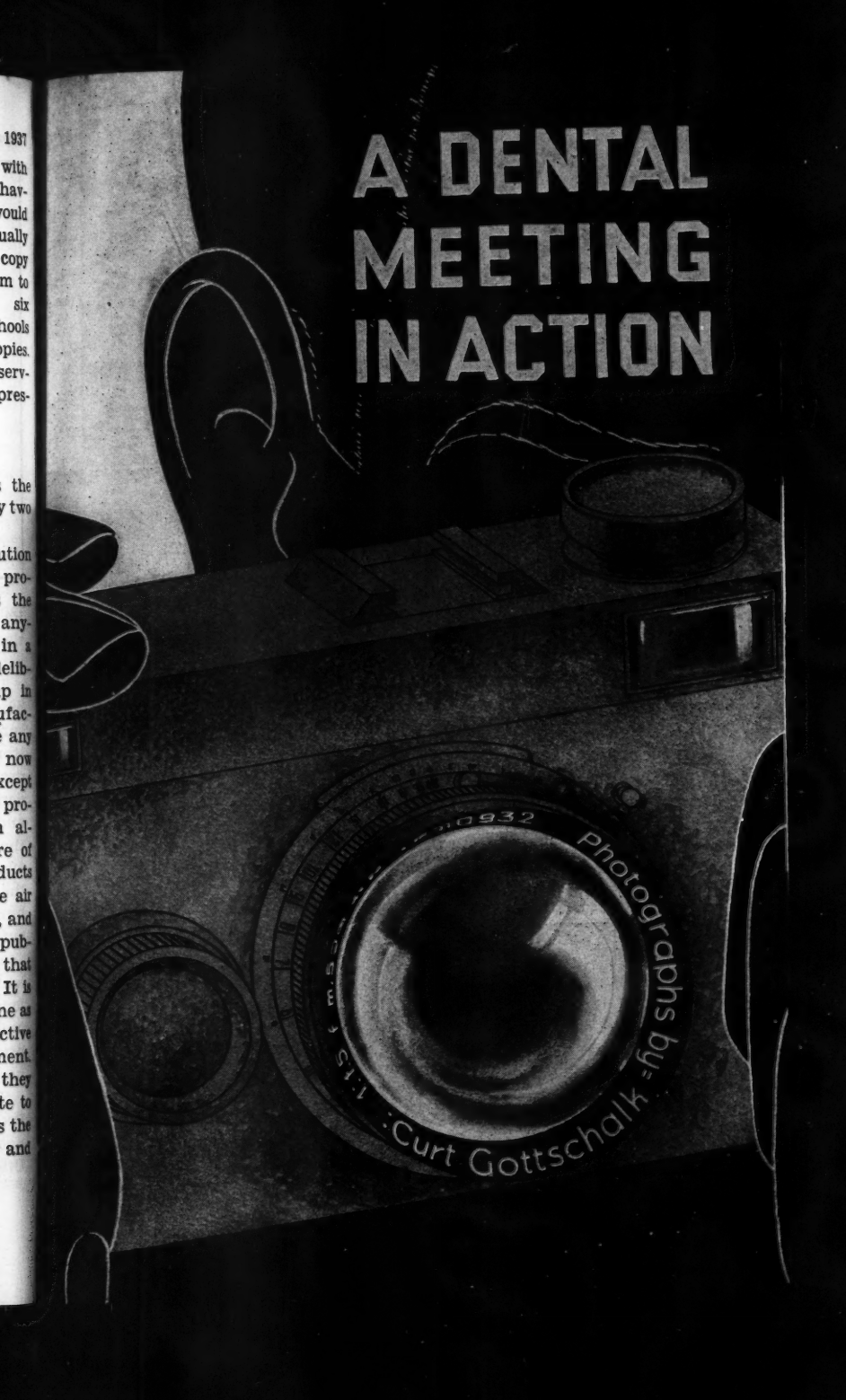
The Source of Funds

For the last three years the funds have been furnished by two dental manufacturers.

This support is a contribution to the welfare of the dental profession as a whole and is the nearest to pure altruism of anything I have encountered in a fairly long career. I have deliberately arranged the set-up in such a way that these manufacturers cannot possibly make any commercial profit from the now considerable expenditure, except through the good-will of the profession—and both of them already have a large measure of that. Their names and products are never mentioned on the air or in the printed broadcasts, and they remain unknown to the public. None of the literature that goes out bears their names. It is purposely sent out under mine as editor, because I am not in active practice and seek no preferment.

Many dentists have said they wished they might contribute to an effort of this kind. Here is the way it can be done helpfully and

(*Continued on page* 485)


A DENTAL
MEETING
IN ACTION
Photographs by
Curt Gottschalk

First in line, these dentists wait impatiently to register at the Chicago Dental Society Meeting, February 15–18 Stevens Hotel, Chicago. At 9,500 the line ended.

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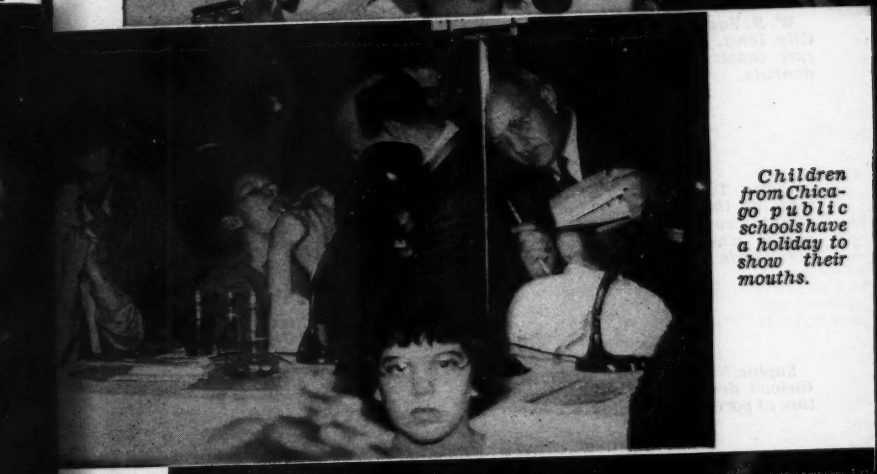
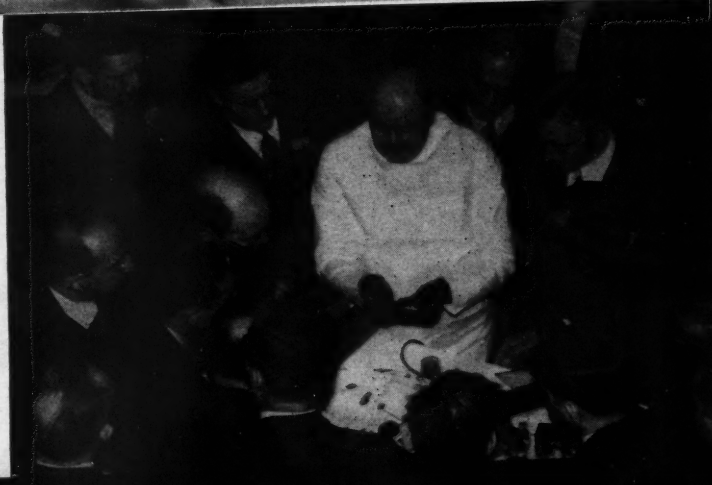
Two past-presidents of the American Dental Association, G. Walter Dittmar and Donald M. Gallie, Senior, (right) greet incoming dentists in the hotel lobby.

In the third floor lobby, the program builder, Harold W. Oppice (left) meets the president, John B. LaDue, to discuss convention problems.



Children from Chicago public schools have a holiday to show their mouths.



W. S. Vanden Bos of Orange City, Iowa, (top) explains denture construction to absorbed dentists.

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Victor T. Nylander, Chairman of the General Clinics, (right) supervises 100 table clinics while dentists crowd every aisle.

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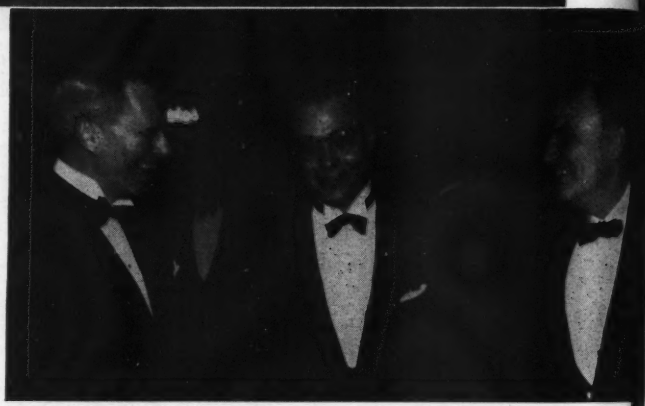
Sophia N. Bolotny of Chicago (below) describes the preparation of porcelain jacket crowns.

An off-the-record shot of a dean, a president-elect, and a trustee at lunch. J. Ben Robinson, Baltimore (left); C. Willard Camalier, Washington (center); and E. G. Meisel, Pittsburgh, (right).

Steins at ease — collection by S. S. Gorny of Chicago at the dentists' Hobby Show.

Steins in action — at the taproom in the Stevens Hotel.

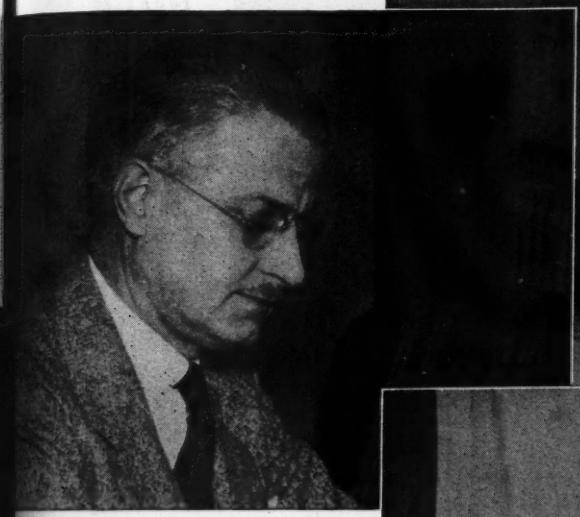
Chicago Dental Assistants' Chorus entertains dentists waiting for Leroy M. S. Miner's lecture on "The Progress of a Profession."



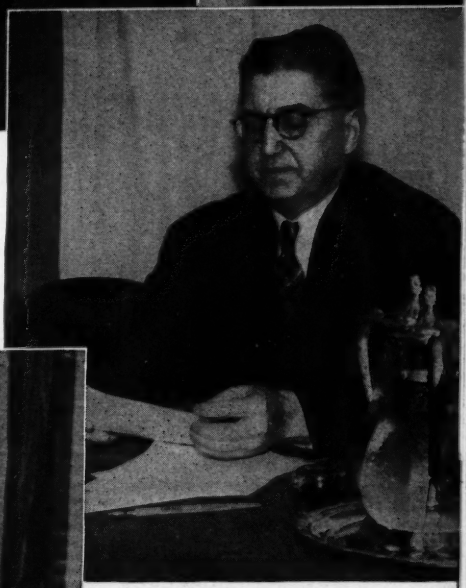
A president of the American Dental Association, a president-elect of the Chicago Dental Society, and an editor prepare for speech-making Monday evening. Leroy M. S. Miner, Boston (left); William E. Mayer, Evanston (center); and Merle Thorpe, Washington, D. C. (right).

Some applause and some indifferent guests at Mr. Thorpe's speech.

The immediate past-president of the American Dental Association, the skilful oral surgeon, George B. Winter of Saint Louis (right) on his way to the table clinics.



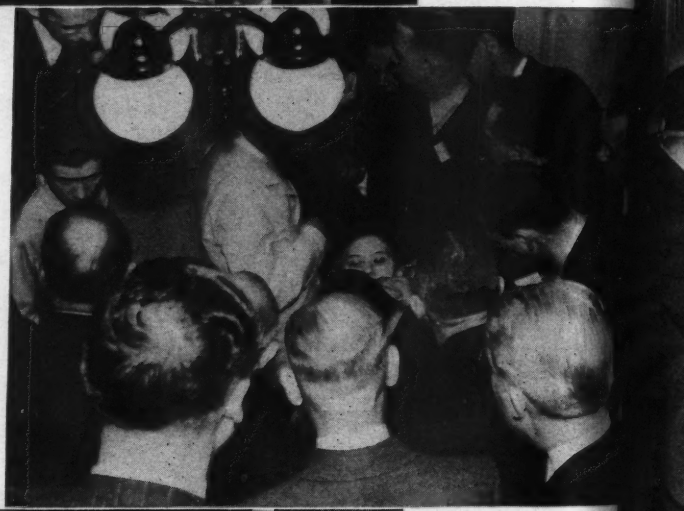
Willis J. Bray, the able secretary of the Chicago Dental Society, at work behind the scenes, keeps the meeting in smooth channels.



An eminent surgeon, Arthur E. Smith of Los Angeles, (above) discusses reconstructive and oral surgery.

A Chicago psychiatrist, Ralph C. Hanmill (left) analyzes in a terse, graphic manner the causes of fears common to maladjusted children.

An exhibit of faces reconstructed by Joseph E. Schaefer and Kenneth W. Penhale of Chicago attracts visitors to the Scientific Exhibits.

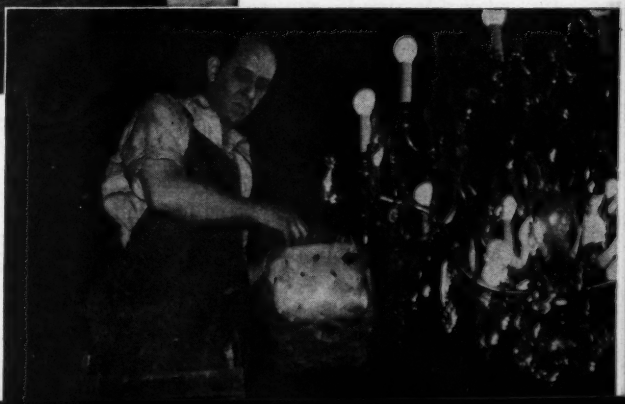


A capacity audience watches John C. Warnock of Kansas City demonstrate electrocoagulation.

This colorful normal diet chart tempts a dentist and a waiter in the Scientific Exhibits.

Frank J. Hurlstone, member of the Executive Council of the Illinois State Dental Society, discusses dental relief administration.

In the exhibition hall a dentist inadvertently models a nasal inhaler for Oral Hygiene's candid photographer.



Lights out! Thursday 5 p. m.

DO YOU LIKE PICTURES?

THE LIFE OF the times is best portrayed in pictures. There are more than 65,000 dentists in the United States. They work and play; attend meetings and engage in serious activities. Some are prominent in the affairs of their communities. There are mayors, athletes, musicians among them. Their lives carry stories of human interest. Many of these stories have been published in this magazine—the journal of dental life.

This month you see the result of an experiment in modern journalism. An able photographer has recorded through the lens of the miniature camera the story of a dental meeting in action. Two others have supplied graphic pictures of dental offices destroyed by the flood.

We should like to publish other pictures of dental life and events. These are the types of pictures we should like to see: of dentists engaged in newsworthy and unusual pursuits; of action pictures in the dental office of human rather than of technical interest; of unposed and candid pictures which suggest a slice of dental life. We expressly insist, however, that we do not want pictures that might give offense or create embarrassment to persons or to dentistry as a profession.

Dentists—or any photographers interested in the dental world—should send pictures to the Editor, 708 Church Street, Evanston, Illinois.

ORAL HYGIENE will pay $3.00 for each picture of the type described accepted for publication.

DEAR ORAL HYGIENE:

"I do not agree with anything you say, but I will fight to the death for your right to say it."—VOLTAIRE

PRIZE WINNING LETTERS

IN RESPONSE TO the question proposed in the article "What Shall I Tell My Son?" in the December issue of ORAL HYGIENE, readers contributed many interesting comments. The three prize letters for which awards of $15.00, $10.00, and $5.00 were made respectively are reproduced here in full. Contributors who received honorable mention are also listed.

First Prize—B. F. ERB, *Anamosa, Iowa*

After fifty years in dentistry my son would be told the same as he was twenty years ago when he was sixteen and I thought it was time to begin to think about his future work.

He would be told that dentistry is a field so broad that he can use all the ingenuity his mind is capable of developing and his hands of mastering.

That he can be as independent as good business judgment will warrant.

That he can regulate his office hours and take a day, a week, or even a month off without asking anyone.

That he will have his evenings for his own pleasures.

That he can enjoy his family, he can plant and cultivate flowers which everyone who passes his home will admire, or he can play golf while his family entertains itself.

That he can take an active part in the state and national dental societies to the extent of his ambitions.

That he can take an active part in all civic activities, in a lodge, and in a church and be honored with any office that they afford.

That he can own his own home which may be among the best in the town and give his family all reasonable advantages.

If he has ordinary skill and if his health permits, he can do anything except amass a fortune in dollars. He is a day laborer, nothing accumulative, just what he earns each day.

He is never forgotten when a subscription paper is circulated and he is supposed to donate generously and cheerfully because he makes lots of money easily.

He looks into all sorts of mouths and listens to all sorts of tales. "Grandmother had double teeth all around." "Grandmother cut her third set of teeth." "Uncle Jake swallowed his false teeth while drinking hard cider." A tooth is broken in a denture while drinking milk or eating gravy. A filling drops out while bathing or licking a spoon used to stir cake frosting.

When the pain becomes unbearable, the dentist is called upon to

cure by magic. He must be a magician extraordinary and do the impossible. He is seldom praised for his carefulness but is as rough as a blacksmith. He is never thought to have sympathy for his patient. A big husky drops in and tells how he can have a leg sawed off or an eye blackened easier than he can have a small cavity filled. In fact, he seldom hears anything cheerful. It is a sore tooth with all the trimmings.

He must make a very nominal charge or else he is a horse-thief.

Nevertheless, dentistry is very essential to health and esthetics. It is honorable, almost boundless in opportunity and reasonably remunerative. It is what I can recommend to any young man with ambition, ability, and a liking for such work. We cannot all be Mortons, Wells, Blacks, or Winters but we can average well in any community and hold our own. Anyone who is ashamed of or disappointed in being a dentist should take a peek in the looking-glass and see the cause.

The future holds much for the dentist and after fifty years of practicing dentistry I wish I were just beginning.

Second Prize—EDWARD SAMSON, *Aldington, Bournemouth, England.*

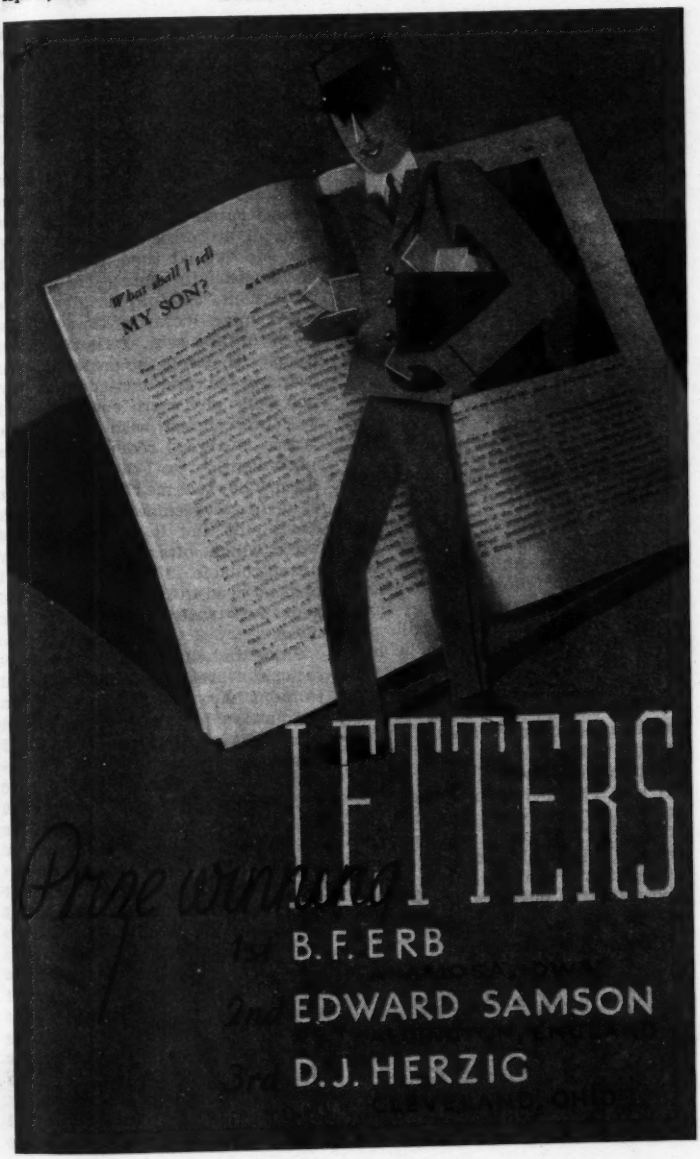
If a reader from another country may be permitted to enter the competition you have proposed in reply to "A Perplexed Dentist"—I would like to offer my letter of advice in reply to "What Shall I Tell My Son?" This I do more in the spirit of one who is genuinely interested in the future of dentistry than in the hope of winning your offered prize.

Surely this dentist—so perplexed—is balanced on the horns of a dilemma. His conflict is between responsible parenthood and dentistry. His position is that of any man who would guide his son wisely. His difficulties are only those of a man who, because he knows his profession so well, knows also its pitfalls. And the very natural anxiety for his son's welfare has enlarged in his mind the inherent faults of our livelihood, while the wish to be fair to his son has minimized the advantages of dentistry lest he be reproached at some future date for having offered, as a lure, plums which might turn out to be little green apples.

Dentistry is no more fraught with advantages or disadvantages than is any other type of work. The problem facing your perplexed dentist is only that which has to be solved in relation to any means of earning a living. If his son should like dentistry then he will be in heaven—though he might starve there. If the young man should loathe dentistry he would be in hell—even if his income provides a heavenly appearance.

But what I would tell my son is this: "Dentistry, if you have the desire to use your brains and fingers in wise cooperation, will provide you with a living above the average. When the princes of industry flourish and wax fat on the multiple small profits of quick returns your rewards will be little higher than usual. Neither will your share of trade booms and prosperity cycles be more than insignificant. But when the merchant princes are selling their silken hose in exchange for a crust—when Wall Street and Throgmorton Street are walking on their uppers—there will be teeth to tend and mouths to render functionally sound; even if their use is only for a coarser fare. In other words, a dentist may never die a millionaire, though he should never live a pauper.

"And if—my son—you have a material mind and you desire the cream of life with your daily tea—there is enough of business in dentistry to allow you scope for commercial activities. Though always the baser stuff of business methods will be out of your reach because you are the member of a well-designed profession. Thus you will be a business man


What shall I tell
MY SON?
LETTERS
B. F. ERB
EDWARD SAMSON
D. J. HERZIG

on a higher plane. But if you scorn the riches and seek only the ideals of a distant star, dentistry still has a place for you. For, unlike other callings in which the ideals have long been reached and others have to be constantly found to spur on the laggards, dentistry holds its own unattainable ideal. The cure of its two primary diseases is still in the misty future. And what finer than ever to have your hopes in front of you—attainable perhaps—but distant enough to add zest to the daily task!

"And more—if you like your fellow-men and can smile with them when they laugh, weep a little with them when they cry—and see in every face the story of life—then dentistry is yours. If you can see written in each mouth the wild, grand story of evolution and the sad, mad history of disease, disease to be conquered and battles to be fought—if you can see all this, then wield the probe and flash the little mirror of truth. And if you like the society of your fellow-workers whose troubles are always worse than yours; whose knowledge will aid yours and whose ways can be improved by your ways, then join the ranks of the surgico-craftsmen who know so much and so little, for you will be a recruit to the body of a profession which is, as yet, just born."

All this, and more, I would say to my son. The fact that, when I had said it my son would probably say "Oh! yeah" and go to Hollywood to try his luck, would deter me not at all. A dentist can say only what he knows, and a father what he feels, and growing up is a biologic, not an economic process.

Third Prize—D. J. Herzig, 10111 *Euclid Avenue, Cleveland, Ohio*

The article "What Shall I Tell My Son?" by a Perplexed Dentist is truly well written and requires a good deal of constructive and organized thought in order to make a fitting response.

As a recent graduate and new member of the profession, perhaps, in my humble way, I may be able to contribute some information and ideas which may lead to an answer to the question proposed. Using my personal experience as a criterion, or as an example, may I state that I found it difficult to make a choice for my career? I recall vividly that some of my present colleagues had told me at that time, that I would be foolish to enter the dental profession. "Go into business—it is much more lucrative than dentistry," so they said. I thought that perhaps they felt the profession was overcrowded and consequently did not want any more competition. I was preoccupied with the phrase "there is always room for another 'good' dentist," so I did not listen to them. They told me that the practice of dentistry became monotonous at times and that it really was hard work which often involved many uncontrollable factors. Again, I paid no heed to their comments and kept busy with my own altruistic ideas.

Since that time and those conversations, a great deal has happened to me. I have been in practice for a year and a half, and in that short time I have learned quite a bit. I have taken inventory of my achievements and progress to date; I have compared myself to some close friends of mine who lack both the liberal and the specialized college training that I have procured. On the face of things, it appears that they have advanced more than I have. Some of them are in business for themselves, and some are merely employees. They are all making a nice living and have the nucleus of a family begun and can afford most of the pleasant luxuries, while I have to work hard and diligently in order to build up a clientele. It is a long process which may not show any immediate benefits. However, I feel that in the years to come I shall be

farther ahead than my friends of the non-professional class. I believe that my college training, my experience in dealing with human beings and with human suffering will eventually lead me to live a happier, richer and fuller life. I have still retained some of my altruistic tendencies, for I believe that money does not equal happiness in the mathematical sense or any other sense.

As for the dental profession, it is not easy to say that it offers ideal possibilities. It is wise to add some of the glamorous facts and incidents to offset any daily routine which may be interpreted as hum-drum. Tell your son of the difficulties to be encountered—tell him of the hard work and of the personal factor which complicates dentistry. Give him a slight insight into the history of dentistry—this glamour may add to his interest but it will not necessarily influence him to too large an extent.

After all, dentistry is a very large field which could stand a lot more research and probing. If you are not interested in having your son study dentistry, or if he is not interested, all this would be superfluous. Assuming that both of you are interested in his studying to become a dentist—show him how much more progress he can make because of your ability and your means of guiding him. Tell him that one who is really interested can find so much variation in dentistry. Even if one were to prepare simple occlusal cavities all day, each cavity, each tooth, each mouth, each individual is different. Tell him the shortcomings of dentistry—how little we *actually* know of the cause of decay. You can likewise tell him how it feels when one knows he is performing a service to humanity. Tell him as well how little some people appreciate your services. Above all, tell him that if he is not interested, he should never undertake the study of dentistry. No matter how high your fees may be, they never compensate for the services rendered to the patient.

Tell him that he may never become rich or wealthy from the practice of dentistry, but the personal satisfaction gained from being of service and contributing your small share to the well-being of humanity should justify this lack of balance between service and fee.

Honorable Mention—

J. Lee Akers, 5300 York Road, Baltimore, Maryland

J. Edwin Armstrong, First National Bank Building, San Diego, California

D. D. Beekman, 1225 New York Avenue N. W., Washington, D. C.

George J. Bleecher, 4124 Girard Avenue, Philadelphia, Pennsylvania

J. Frank Brunson, P. O. Box 861, Meridian, Mississippi

James E. Callaway, 152 West Wisconsin Avenue, Milwaukee, Wisconsin

A. B. Carey, Pittsfield, Illinois

J. P. Carmichael, 1126 Fourth Avenue, Los Angeles, California

Arthur B. Cherney, 1210 West Center Street, Milwaukee, Wisconsin

M. Coleman, 14-16 Glen Street, Glen Cove, New York

H. J. Comley, Sproul Building, Irvine, Kentucky

C. A. Ebling, Owensville, Missouri

Henry Fischer, 111 East 167th Street, New York, New York

E. Allen Frankel, 5023 Broadway, Chicago, Illinois

Leon Harris, 147 Fourth Avenue, New York, New York

Harry H. Hess, 1701 Stone Street, Falls City, Nebraska

Ralph B. Hindenach, 2130 Main Street, Parsons, Kansas

William G. Jewett, Stevens Block, Gardner, Massachusetts

R. M. Kisner, 422 Medical Arts

Building, San Antonio, Texas

J. P. Leonard, 703 Union Building, Davenport, Iowa

Edgar P. Lewis, 410 Wakefield Building, Oakland, California

Margaret Luca, 186 Rockaway Parkway, Valley Stream, New York

J. L. Manire, 1764 Linden Avenue, Memphis, Tennessee

B. H. Masselink, 8½ Monroe Avenue, Grand Rapids, Michigan

H. D. Meyer, 708 Church Street, Evanston, Illinois

Philip Nemoff, 625 Bergenline Avenue, West New York, New Jersey

Walter F. O'Brien, 309 Harrison Avenue, Leadville, Colorado

N. T. Pavey, 1201 Mutual Home Building, Dayton, Ohio

Aaron Pepper, 11 West Prospect Avenue, Mount Vernon, New York

Edward Popp, 4811 North Hopkins Street, Milwaukee, Wisconsin

C. H. Puterbaugh, 104 South Race Street, Urbana, Illinois

S. P. Ratner, 31-58 Steinway Street, Long Island City, New York

P. G. Rudin, 707 East Ohio Street, Pittsburgh, Pennsylvania

Carl E. Schultz, Tinley Park, Illinois

P. L. Seamon, Smith Street at Madison Avenue, Perth Amboy, New Jersey

N. P. Shearer, 1500 Sixtieth Street, Kenosha, Wisconsin

V. H. Spensley, First National Bank Building, Albuquerque, New Mexico

C. A. Sturdevant, 513 Crawford County Trust Building, Meadville, Pennsylvania

C. R. Swanson, Crisfield, Maryland

Irvin H. Tulkin, 3038 Third Avenue, Bronx, New York

Cephas N. Whitney, 1126 Fourth Avenue, Los Angeles, California

Lloyd H. Wise, 416 Illinois Building, Champaign, Illinois

Submits Plan

Your editorial "Is Dentistry Ready for Economic Experiments?"[1] prompts me to submit a plan which I have been considering for some time.—I submit this plan—not my idea concerning the plan—for debate.

I also agree with you that it constitutes neither socialism nor communism. If you desire, I shall give you my ideas concerning this plan later. I believe that the bare plan will stimulate thinking which is better than explaining. The outline is this:

Five hundred families purchase capital stock at $10.00 per share to equip an office. Averaging three to the family, fifteen hundred persons at $5.00 per person per annum, purchase service listed as preventive dentistry. Services listed as restorative dentistry are optional, at additional fees.

Preventive dentistry includes: amalgam and silicate restorations, extractions, x-ray examinations, prophylactic treatments, and orthodontic service.

Restorative dentistry includes: dentures, inlays, foil restorations, crowns, bridges, and orthodontic appliances.

This should gross $10,000 per year —$7500 from annual payments and $2500 from restorative fees—and cover operating expenses and salaries to dentist, hygienist, and dental assistant.

Six productive hours per day, 250 days per year, would average two hours service per year for each patient—one hour from the dentist, and one hour from the hygienist.

Would such a plan meet better the needs of our fellow citizens in the low income groups? Possibly not adequately—but better?—C. O. Westcott, D.D.S., Beaver Dam, Wisconsin.

[1]Editorial, Is Dentistry Ready For Economic Experiments? ORAL HYGIENE 27:58 (January) 1937.

BUILDING DENTALLY CONSCIOUS AUDIENCES

(*Continued from page* 468)

at the same time give the dentist excellent value for his money.

The printed broadcasts are now offered on a subscription basis through dental dealers or direct, just as a magazine is offered.

The volume contains 52 printed broadcasts, 26 for children from 10 to 16 and 26 for adults, in a handsome binder stamped with the name of the program and the dentist's name, at half the cost of production and handling.

Every dollar received from subscriptions will be returned to the fund for the extension of the work.

The printed broadcasts are proving helpful in offices. They interest visitors and often enlarge the conception of the value of dental service. The volume bearing the dentist's name is a mark of distinction. The broadcasts contain ample material for addresses before Rotary and Lions Clubs, Parent Teachers Associations, and the like.

Here, then, is a non-commercial activity before which the doors of opportunity are opening wide.

What shall we do with it?

220 *West Forty-Second Street*
New York, New York

THE STATUS OF LOST DENTURES

Is a temporarily detached denture a part of the human body or is it personal property?

Can the owner recover damages for the loss of a denture under the terms of a personal property floater policy which covers the loss of personal effects wherever they might be located?

These questions came up for answer before the Appellate department of the Superior Court in Los Angeles recently, when an insurance company wanted to avoid paying a man for his lost dentures and maintained that the dentures were simply substitutes for the original teeth and, as the teeth were part of the human body, the substitutes must be too.

In his decision Judge Hartley Shaw refused to say whether dentures in the mouth are a part of the body, but he decided that, when reposing in the pocket, they were personal property, to-wit, "floaters" and the insurance company must pay.

Be Fair To ORTHODONTIA

by T. WALLACE SORRELS, D.D.S.

UNFORTUNATELY FOR dentistry and especially orthodontia, some practitioners cannot control their egotism and false philosophy of practice. First one and then another seemingly has to break out in print with ridiculous claims. Many of them base their argument upon the old and rickety foundation of professional prejudice and jealousy.

One of the latest commentators coming before the profession is Doctor Norman L. Ross[1] of Port Chester, New York, with an article expressing his opinions of orthodontia in the February number of ORAL HYGIENE. Years ago, he adopted the slogan "Orthodontia is Easy," and says he has clung to it despite all discouragements. Thus, he has tucked all his troubles into the word "easy." He seems to have become obsessed with an idea which was in the beginning a false version obviously inspired by fear that he would not be able to master orthodontia, or a conscience-less determination to make his sojourn in orthodontia an easy passage.

Every fair-minded and thinking dentist knows from his own observations and experiences that the scope, complexities, and difficulties arising in connection with the successful conduct of an orthodontia practice make it a serious proposition. To do something easily, as defined by Webster's dictionary, is to do it "free from trouble, anxiety or restraint." By ignoring these principles he is forcing his conscience to rest upon a strange philosophy. Orthodontia practice is being made easier with the advancement of educational standards and scientific achievements, but let no one lead you to believe it is easy or that a depressed practice can be rejuvenated financially by filling the gap with orthodontia patients, unless you are sure of your ability to treat your patients and yourself fairly.

The long-established custom of allowing anybody holding a dental license to represent himself publicly as a specialist without first proving the validity of his claims is responsible for notorious abuses of the public and professional confidence. Too many are taking short, proprietary postgraduate courses and spending a week or two in some-

[1]Ross, N. L.: My Opinion of Orthodontia, ORAL HYGIENE 27:179 (February) 1937.

body's office and then holding themselves up as super-service practitioners. There is urgent need for the State Boards of Dental Examiners to establish a standard of qualification for admission to the specialties by suitable examination under a statutory licensing system. Such a plan should permit the general practitioner to practice all branches without restraint so long as he does not announce himself as having extraordinary ability in certain lines of practice.

It is doubtful if Doctor Ross has come very far in orthodontia, if we are to judge the man by his frivolous statements. His name does not appear on the roster of the Orthodontia Directory of the World, or on the membership roll of the American Society of Orthodontists.

It is absurd for the dentist to claim that the specialists attempt to keep orthodontia under cover, when an examination of dental literature reveals that more articles, journals, and books, covering all phases of orthodontia practice, are being released for professional information, than in any other major branch of dentistry. A further investigation indicates that no other group, in accordance with their numerical strength, has done quite so much for the general advancement of dentistry.

It is true that scientifically-minded orthodontists do compile special graphic data for the purpose of diagnosis and treatment. Doctor Ross infers that the use of the "hit or miss" system used by advertising dentists for quantity production is more acceptable than scientific case analysis.

It may be safely stated that the orthodontists of the country have been exceedingly charitable with their patients and those seeking their services. Reliable statistical information shows that the average incomes for extractions, prosthetic and general operative dentistry, average much larger returns per income production hour among the country's practitioners than do orthodontia fees. Doctor Ross sets up as a criterion some top notch fees covering some years of treatment service and a period of time to collect. When these are compared with the rapid turnover of similar fees for other types of restorative dentistry, even they appear comparatively small. In comparing fees, a full allowance should be made for difference in production costs and difference in ability. The average orthodontia fee in the United States is far less than half the amount Doctor Ross would have you believe it to be.

Ethical orthodontists have no defense to make for the few practitioners, who have themselves patented appliances. The ethics of the American Society of Orthodontists forbids this practice and operates effectively against such business tactics.

1206 *Medical Arts Building*
Oklahoma City, Oklahoma

Editorial Comment

GIVE ME THE LIBERTY TO KNOW, TO UTTER, AND TO ARGUE FREELY ACCORDING TO MY CONSCIENCE ABOVE ALL LIBERTIES. *John Milton*

PROSPERITY IS NOT ETERNAL

The bold, sure outlines of returning prosperity are about us everywhere. Mr George Soule[1] in a recent article has warned us that, although business is now buoyant, prosperity is not eternal; "now that dividend checks are back in the mails, factories are noisy again, and even the Pullman cars are overflowing, people ask questions about how long good fortune is going to last, whether we shall have another boom and whether it will be followed by another crash."

Since the first of the year I have attended dental society meetings in Saint Louis, Chicago, and Buffalo. Each one broke all previous attendance records. The sour notes of the six lean years, 1929-35, were lacking. Dentists talked of their well covered appointment books and not of their vacant pages. Many were remodeling their offices and buying the capital goods for dental production; equipment and new instruments. All were using more of the consumption goods that enter the dental service: materials and supplies. Nearly every dentist who talked of business recovery remarked that "old" patients who had declared a dental moratorium during the lean years were returning.

A tremendous backlog of untreated dental disease has been built up during the depression years. All this must be treated in some manner. Dental disease, once established, is not self-correcting. Dental disease grows progressively worse. A dentist only can treat the condition. This means simply that thousands of people must pay the price of their neglect. They will need extensive dentistry: multiple extractions, bridges, dentures.

[1]Soule, George: This Recovery, Harper's Magazine 174:338 (March) 1937.

This large demand for extensive dental care may tempt some of us into the economic errors of the late 1920's. We may once again see history repeat and find dentists concentrating on big fees and big cases to the exclusion of moderate fees and simple treatments. To be sure, we should follow the upswing and rising price levels and adjust our fees accordingly. Professional fees should be revised upward in time of recovery, as promptly as they are reduced in a depression. The danger is that we may be tempted to fix our minds on extensive restorations and thus, with the increasing demand for our services, extend our fee level above prevailing price levels for other goods and services. Such an inflation in dental fees must have a disastrous effect.

We will, if conditions continue to improve, be busy during the next few years correcting the dental disasters of the depression years. We deserve to share largely in the new prosperity. While we correct the ravages of untreated dental disease we cannot afford to be exclusively concerned with repair. We must continue to preach the doctrine that regular and periodic dental care is the least costly and the most satisfactory. Then, should another business reversal descend on us, we are somewhat prepared; prepared with patients who are ready to accept and practice constant dental attention.

It is not pessimism or lack of faith that makes us project our thinking beyond the present beginning prosperity. We should make fewer of the mistakes that we made in the other era of prosperity. Everyone of us should have learned one lesson: to conserve our seed corn in the time of abundance to prepare for scarcity. This metaphor can be applied to dentistry. If we prepare people's minds during the coming abundance for the dentistry of conservation we and they will be ready. "There is no reason whatever to expect," said Mr. Soule, "that the new prosperity, if we have it, will be eternal."

Edward J. Ryan

Ask ORAL HYGIENE

Please communicate directly with the Department Editors, V. CLYDE SMEDLEY, D.D.S., and GEORGE R. WARNER, M.D., D.D.S., 1206 Republic Building, Denver, Colorado, enclosing postage for a personal reply. Material of general interest will be published each month.

Procaine Dermatitis

Q.—Can you and will you send me the diagnosis, prognosis, and treatment of procaine dermatitis?—G. H., Connecticut.

A.—Procaine dermatitis is characterized by, first, an itching and then a desquamation of the skin of the hands and, in some cases, particularly around the finger nails. If one is sensitized to procaine, it will inevitably cause dermatitis whenever it is used.

The use of rubber gloves whenever injecting will, in many cases, eventually result in correcting the condition.

Resorting to the use of butyn or apothesin will help in some cases and these anesthetics seem to serve well in place of procaine. However, their use may not result in a clearing up of the dermatitis.

For treatment of the condition zinc oxide calamine may be used freely. The use of powdered alum is also helpful. As a last resort, treatment with roentgen rays or injections of the procaine itself may have to be resorted to. In either case a dermatologist should carry out the treatment.—GEORGE R. WARNER.

Detecting Platinum

Q.—I have a quantity of old discarded dentures, some of them with "white pin" teeth and a few of the older ones with platinum pin teeth. I should like to know a simple way to tell which are platinum so that I may break out the platinum pins only and sell them as scrap metal.

Is the method of crushing the tooth in the beaks of strong pliers the simplest one to free the pins?—C. J. A., Louisiana.

A.—Nitric acid will attack the base metal pins but not the platinum pins. If you have many of these platinum pin teeth, I should think it would be quicker and easier to pound them up with a hammer than to crush each separate tooth with a pair of pliers.—V. C. SMEDLEY.

Pressure in Mastication

Q—I should like to have the exact amount of pounds pressure per square inch that is exerted in the average adult mouth during the process of mastication. Can you give me the amounts in the various parts of the mouth, as in the incisal region, premolar region, and the molar region?

Also, have you any data on how much pressure it takes to break a molar, premolar, or incisor when biting on a hard substance such as stone, metal, and so on, particularly if the teeth are sound, not decayed?

Please give me the names of reference books that deal with these two questions, if there are any.—C. A. L., Massachusetts.

A.—As far as we can find, the first and virtually the only work done on the subject of "biting pressure" in the human mouth was done by the late Doctor G. V. Black. He started his tests with a gnathodynamometer in 1895 and gave some of his results in "An Investigation of the Physical Characters of the Human Teeth in Relation to their Disease, and to Practical Dental Operations, Together with the Physical Character of Filling Materials," published in 1895 in the *Dental Cosmos*.

In this paper Doctor Black[1] gives the results of a number of tests, a few of which ran as follows: Pressure on

Incisors	Molars
55 lbs.	100 lbs.
100 lbs.	210 lbs.
40 lbs.	130 lbs.
85 lbs.	125 lbs.
30 lbs.	65 lbs.

In the second volume of Black's *Operative Dentistry*,[2] Doctor Black gives the results of tests on half a dozen students, molar region, as 155 pounds, 190 pounds, 250 pounds, 220 pounds, 225 pounds, and 150 pounds. Extreme average range from 100 to 300 pounds.

Quoting from Doctor Black, "In a tabulation of results in 1000 persons, the average force exerted was 171 pounds on molar teeth and considerably less on bicuspids and incisors.

"People tested usually stopped biting because of pain in the peridental membrane rather than because of having reached the full limit of muscular effort."

Doctor Black made tests on freshly extracted teeth of their resistance to a sharp steel point and also with the steel covered with tough rubber. With the steel against:

1. Mesio-buccal cusp of an upper second molar with rather sharp cusps, the cusp broke off at 125 pounds pressure.

2. On the obtuse lingual cusp of the same molar, nothing happened until 350 pounds had been exerted.

3. Disto-buccal, rather sharp cusp of an upper second molar. Enamel checked at 135 pounds and cusp split off at 165 pounds.

4. Round lingual cusp of an upper first bicuspid. Enamel cracked a little at 100 pounds but there was no further break at 350 pounds.

Doctor Black made some tests as to the resistance of foods to crushing force, which showed that the tender central part of cold boiled tongue well done, crushed at from three to five pounds, whereas tough beefsteak required from 60 to 80 pounds' pressure.

You will find a reading of Doctor Black's work both interesting and profitable.

There is a paragraph on the subject in McGehee's *Operative Dentistry* but it is taken from Doctor Black's work.—GEORGE R. WARNER.

[1]Black, G. V.: The Force Exerted in the Closure of the Jaws, Dental Cosmos, page 469 (June) 1895.

[2]Black, G. V.: Operative Dentistry, Chicago, Medico-Dental Publishing Company, 1922.

Loose Dentures

Q—I am writing to ask about a

full upper and lower denture case.

The patient is a middle-aged woman, who had all her teeth extracted four and one-half years ago. The upper denture resists tipping and has good suction just after seating in the mouth, but in a short time it loosens and drops down. She informs me that taking a drink of water seems to loosen it readily even if she uses denture powder.

The mucous membrane over the whole palate is thin. The muscle attachment is medium. The posterior teeth on the right side are set out from the ridge, and it is this side that seems to loosen first. The patient states that there is a feeling of firmness on the left side, but on the right side she has to move the mandible laterally to feel firm pressure. She has had dentures made from all sorts of impressions. The present denture was made from a zinc oxide paste impression in a shellac base plate moulded to a snap cast.

The lower denture rests on a narrow flabby ridge and has poor retention but that does not cause the inconvenience the upper denture does.

Because of the looseness the patient has trouble with gagging. The saliva is medium in quality and quantity.—D. H. F., Illinois

A.—You evidently have done all that you could or should do so far as making an accurate impression and fitting the mouth goes.

With the thin mucous membrane and flat mouth that this patient has, it is no doubt impossible to secure and maintain a tight suction, but if the teeth are set in balanced occlusion and placed in under the ridge on the right side as they are on the left, using the cross bite set up, the special Gysi cross bite teeth or any way you like, you can eliminate this leverage. Then teach the patient to exert no dislodging leverage in the use of these teeth, have her chew with the food divided so that she may chew on both sides at once; thus avoiding unequal pressure with a consequent dislodging leverage, and in attempting to bite on the front teeth she should exert a stabilizing inward and backward pressure with the morsel of food while biting into it.—V. C. SMEDLEY.

Dark Lines on Teeth

Q—My patient, a woman, 50, has developed dark lines on the labial side of the anterior teeth—following the gingiva. The lines can be removed by prophylaxis, but recur two or three weeks after.

The patient has had a partial thyroidectomy. During a short hospitalization she took as much as 30 minims a day of iodine.—J.A.A. Massachusetts

A.—The dark stain near the gingiva of teeth occurs in only a few cases, and, so far as I know, the cause has not been assigned in every case. In some cases it is a result of a high meat diet, in some, perhaps of a high vegetable diet. I have certain cases, however, in which the patients are on an ordinary diet, do not use tobacco, and still the stain recurs after every prophylaxis. In the cases I have in mind, the persons are in perfect health so far as we know. We are, therefore, at a loss for a cause as I am in your case.—GEORGE R. WARNER.

Bleeding Gums

Q—I have a patient, a man, 24, whose gums seem firm and healthy,

but he complains that his gums have always bled when he brushed his teeth. He has been coming to me for dental service for about five years, and I scale and clean his teeth every six months. He takes good care of his teeth brushing them three times a day and still the gums bleed. His teeth are in excellent condition with only occlusal restorations and his occlusion seems good. He says he has been to numerous dentists, but no one has been able to stop this bleeding. His gums seem firm and healthy, but yet they bleed easily when I scale and clean his teeth. I shall appreciate your advice.—J. P. B., Virginia.

A.—In our experience the most common cause of susceptibility of the marginal gingivae to easy bleeding is the presence of irritating substances beneath the gums. If the patient has thorough scaling and polishing every three to six months and uses the proper kind of stimulating brushing every day and still the bleeding occurs, we must think of something else. Our next thought is the possibility of a chronic Vincent's infection. Therefore, make smears to see if this is the cause. If Vincent's infection is eliminated, you should consider systemic conditions.

I read an article by Doctor Magello[3] several years ago in which he listed the causes of bleeding gums in such a logical way that I am quoting the information. It may help you to clear up your own case:

1. Local Causes:
   - (a) Injury
   - (b) Tartar
   - (c) Dental caries
   - (d) Periodontoclasia
   - (e) Acute and chronic stomatitis
   - (f) Neoplasms
2. General Causes:
   - (a) Scurvy
   - (b) Blood dyscrasia
     - (1) Purpura hemorrhagica
     - (2) Leukemia
     - (3) Pernicious anemia
     - (4) Aplastic
     - (5) Hemophilia
3. Arteriosclerosis
4. Diabetes mellitus
5. Heavy metal poisonings
6. Febrile states
7. Toxic states
8. Deficiency of Vitamins C and D and of blood calcium.

—GEORGE R. WARNER

[3]Magello, E. R.: Bleeding Gums, New York. J. D. 4:278-280.

Denture Construction

In regard to a question from A. M. M.,[4] Illinois, in the October, 1936, issue, I believe that I had a similar case, as all data indicates.

The case, as it was presented in my office, gave similar history, of many dentures over a period of a few years, each successive denture becoming loosened within a few months.

I took impressions and proceeded to make dentures, to the best of my ability. At the end of six months, however, the patient complained of the identical looseness of the upper denture.

Roentgenograms of the maxilla, from every position possible, finally disclosed a horizontally impacted cuspid just back of the anterior ridge. Believing this to be the cause of the dif-

[4]Ill-Fitting Dentures, ORAL HYGIENE in Ask Oral Hygiene 26A:1340 (October) 1936.

ficulty with the denture, the patient was referred to an exodontist, who surgically removed the impaction.

The denture, which was subsequently constructed, has been perfectly satisfactory, and as a period of over six years has elapsed, I am confident that even such a deep impaction exerted a downward pressure, causing the looseness.

My suggestion to A.M.M. would be to secure complete roentgenograms from all angles, and I am confident an impaction of some sort will be found.—A. D. Zucht, D.D.S., 208 East Houston Street, San Antonio, Texas.

Ammoniated Silver Nitrate Solution

Q—I have been in practice about seven years and have used with, I think, good results, an application of ammoniated silver nitrate solution followed by an application of eugenol or oil of cloves, in the treatment of decay in deciduous teeth that I deemed unfit for placing a restoration. Also in placing restorations in extremely deep cavities in permanent teeth, I have from time to time used these two solutions in the cavity before placing a cement base, with good results seemingly. Recently I have had trouble finding a pharmacist who could make me up a solution of ammoniated silver nitrate; the one who has formerly made it up for me having left town and the others to whom I have applied disclaiming any knowledge of such a preparation even after an examination of their various formularies. Will you please give me information as to how to prepare an ammoniated solution of silver nitrate?

Here of late when the need arose for using silver nitrate I have once or twice done this: isolated the carious tooth in question with cotton rolls, dried the carious surface with pieces of cotton and swabbed the cavity surface with a piece of cotton dipped in ether (sulphuric ether, $(C_2H_5)_2O$) and followed this with an application of a solution made by dissolving silver nitrate in stick form (lunar caustic) in water. Upon exposure to light for a few seconds, there is formed on the cavity walls a yellow precipitate which seems to be impregnated in the tooth structure itself, since it does not wipe off. I have wondered what this yellow precipitate is chemically and if used in this way and for this purpose it possesses any efficacy. I shall appreciate your giving me what advice you can as to these questions and the information as to the preparation of the ammoniated solution of silver nitrate.—J. D., Texas

A.—An ammoniated silver nitrate solution is prepared by adding to a saturated solution of silver nitrate strong ammonia water to make a clear solution. This is done by adding the ammonia water a little at a time, which will cause the precipitation of dark silver oxide. As this is soluble in an excess of ammonia water the ammonia water should be added until the solution is clear. This can then be precipitated with formaldehyde; one part formaldehyde solution to three parts distilled water, or with eugenol. The preparation of the ammoniated silver nitrate requires experience and care. The ready prepared costs so little and is in such convenient containers that we buy it from the supply houses.

Your method of precipitating silver nitrate with light is the old method and is perfectly satisfactory, except that it takes

longer unless one can expose it to sunlight. The precipitate is silver oxide.—GEORGE R. WARNER.

Dietary Facts

Q—Will you kindly answer the following questions?

1. Please define viosterol, ergosterol, sterol, irradiation of foods.

2. I have seen "Balanced Diet" referred to many times but have never seen a definition for it. Please define "Balanced Diet."

3. Can a dentist (or physician) know whether a patient really needs phosphorus, or calcium without a blood analysis to see if there is a deficiency in one or both of these constituents? If a dentist does not know, positively, that either (or both) is needed would he not be foolish to prescribe one (or both) of these elements?

4. I often see children of about the age of seven years whose jaws have not developed sufficiently to accommodate the permanent teeth which are erupting at that time and which are coming in "jumbled up" instead of in their proper alignment. Will cod-liver oil (or anything else) speed development of the jaws in a case of that kind? I believe the teeth tend to take their proper positions, later, when the jaws do develop, do they not?

5. What is the reason for lower third molars causing so much disturbance—soreness, swelling, and trismus? What is the cause of trismus following extraction of lower third molar, (sometimes)? And, what is the best treatment?—S. C. H. Kansas.

A.—In answer to your first question contained in your letter, viosterol is a general name for preparations of irradiated ergosterol. Ergosterol is an impure form of cholesterol occurring in animal and plant tissue. On irradiation it becomes a potent anti-rachitic substance. Sterol is of the same nature as cholesterol. Irradiation is the exposure of substances to the action of the roentgen ray to develop vitamin D in the substance so exposed.

The answer to your second question, in relation to a balanced diet, would vary with the person for whom the balanced diet is being prescribed, but generally speaking a balanced diet is a diet which contains the right proportion of the various elements of food substances required by the body. One person might be deficient in sulphur, for instance. Therefore, to balance that person's diet he should have enough sulphur bearing foods. Because of the demineralization and devitaminization of many of our foods, we are not likely to get enough of those substances to make a balanced diet. It is for that reason we have to pay particular attention to the foods which contain minerals and vitamins necessary to meet the body's requirements.

In answer to your third question, I would say that one cannot tell definitely that a patient is deficient in calcium and phosphorous without a blood examination. However, it is safe and can't be harmful to prescribe for patients whom we suspect to be deficient in these minerals, foods, which carry these minerals. It often happens that we have a patient whose general appearance or extreme susceptibility to caries indicates that he is deficient in calcium and phosphorus. I then have him bring me a list of the foods he eats for a whole week and I evaluate them for calcium and phosporus

intake. If I find, as I usually do, that the calcium-phosphorus intake is deficient I feel perfectly safe in prescribing calcium and phosphorus bearing foods up to the required amounts of daily intake. However, taking enough calcium and phosphorus isn't always the only thing required. The body doesn't accept calcium easily. Therefore, it is necessary to add vitamin D to induce the body to accept more calcium. Giving vitamin D in the form of sunshine and milk or the fish oils can't be harmful if it is carried out intelligently. It is generally considered that the failure of children's teeth and jaws to develop sufficiently to accommodate the teeth is due either to inherited tendency, ductless glands insufficiency, or improper food, and unless the condition of gland trouble is overcome, if that is the cause of the trouble, or improperly balanced diet is not corrected, we can't hope that the jaws will develop adequately to take care of the permanent teeth, unless we resort to orthodontia. The stimulation of orthodontic treatment induces bony growth in the jaw. Of course there are occasions when the children's habits are changed without being conscious of it. Perhaps they eat more or better food, or they become interested in exercise; they are out in the sun more, so that growth is stimulated without any particular treatment.

In your question marked "5" in relation to mandibular third molars I suspect you mean the disturbance following their removal. This disturbance is all the result of trauma in the removal of the teeth. A mild cellulitis is set up, and this extends to the tissues around the joints of the jaw and it is from this that we get the trismus in a certain number of cases. Hot magnesium sulphate packs seem to have the most beneficial effect on these cases of cellulitis and trismus.—GEORGE R. WARNER.

DENTAL MEETING DATES

The first Annual Doctor M. I. Schamberg Meeting will be held Thursday, April 8, 1937, at 9 p.m. in the Solarium of the Bronx Hospital, Fulton Avenue at 169th Street, Bronx, New York, in recognition of Doctor Schamberg's forty years' of service in the field of oral surgery.

American Society of Orthodontists, thirty-fifth annual meeting, Edgewater Beach Hotel, Chicago, April 19-22.

North Carolina Dental Society, sixty-third annual meeting, Carolina Hotel, Pinehurst, May 3-5.

Cleveland Dental Society, sixth annual two-day clinic, May 3-4.

Dental Society of the State of New York, sixty-ninth annual meeting, Waldorf-Astoria, New York City, May 4-7.

Pennsylvania State Dental Society, sixty-ninth annual meeting, William Penn Hotel, Pittsburgh, May 4-6.

Tennessee State Dental Association, seventieth annual meeting, Knoxville, May 10-13.

Illinois Dental Society, seventy-third annual meeting, Springfield, May 11-13, 1937.

Georgia Dental Association, sixty-ninth annual meeting, DeSoto Hotel, Savannah, May 17-19.

The Great Swampscott Convention, New Ocean House, Swampscott, Massachusetts, June 7-9.

CONGRESS OF ALLIED PROFESSIONS TO MEET

When the Minnesota State Medical Association assembles for its eighty-fourth annual meeting in the Saint Paul Auditorium, May 3, 4, and 5, the first day will be devoted to the sessions of the Congress of Allied Professions made up of dentists, physicians, nurses, social workers, and pharmacists. A member of the dental profession will address the Congress on the morning of May third and a large public health meeting will climax the evening session.

Distinguished medical men as well as representatives of the Social Security Board, the United States Public Health Service, and the WPA will address subsequent sessions of the meeting on the various aspects of national welfare activities in relation to the professions.

W. D. TRACY, D.D.S.

A year before he was to receive the William Jarvie Gold Medal for conspicuous service to dentistry, Doctor William Dwight Tracy, 63, died February 11, 1937, of a heart attack at his home in New York. Since 1904 he had been practicing dentistry in New York, most recently at Two East Fifty-Fourth Street.

The broad scope of Doctor Tracy's activities covered the presidency of the First District Dental Society from 1915-1916, the organization of the Columbia School of Oral Hygiene and the Columbia Postgraduate School of Dental Ceramics, service as a trustee of the University of Pennsylvania since 1932, and membership on many health, welfare, and dental clinic committees.

In 1913 Doctor Tracy was Supreme Grand Master of Delta Sigma Delta, and in 1929 he received the Newell Sill Jenkins Medal from the Connecticut State Dental Association.

A past president of the American Dental Association, Donald M. Gallie, expressed the regret felt widely throughout the dental profession at Doctor Tracy's death, when he said: "Doctor Tracy and I had been friends for thirty years. He was a man of great personal charm, a splendid speaker, and a highly successful dentist. His passing means, beyond personal regrets, the loss of one of the most outstanding and most respected leaders of the profession in the whole country as well as in New York."

Laff-ODONTIA

Indignant Lady (after the crash): "I turned the way I signaled!"

Motorist: "Yeah, I know, that's what fooled me."

o

The farmer's pink cheeked daughter was coming up the lane. She was clad in a grimy pair of overalls from the pockets of which bulged bunches of waste and sundry wrenches, screw drivers and other tools. In her hand a dirty satchel of iron tools:

Visitor: "Where are you going, my pretty maid?"

Maid: "I'm going a-milking, sir."

Visitor: "But why all the tools, my pretty maid?"

Maid: "Trouble with that darn milking machine again."

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Wife: "Henry, you were talking in your sleep last night!"

Husband: "Oh, was I? Sorry to interrupt you."

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"I'm going to kiss you till the cows come home."

"Oh, but my two brothers are policemen."

"Okay, sister, I'll kiss you till the bulls come home."

Lawyer: "Now, sir, did you, or did you not, on the date in question, or at any other times, previously or subsequently, say or even intimate to the defendant or anyone else, alone or with anyone, whether a friend or mere acquaintance, or, in fact, a stranger, that the statement imputed to you, whether just or unjust, and denied by the plaintiff, was a matter of no moment or otherwise? Answer me, yes or no."

Witness: "Yes or no what?"

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Business College Head: "In teaching shorthand and typewriting we are very strong for accuracy."

Inquirer: "And how are you for speed?"

Business College Head: "Well, out of last year's class six married their employers within six months."

o

A Kansas woman wanted a set of artificial teeth and wrote to a dentist thus: "My mouth is three inches acrost, five-eighths through the jowl. Some hummocky on the aige, shaped something like a hoss shoe, toe forard. If you want me to be more particular I'll have to come up thar."

o

He: "Why do some girls stutter when they want to be necked?"

She: "I-I-I-don't know."

o

Goldie: "The man I'm going with now has both money and brains."

Blonde: "Gee, that makes it tough!"